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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/809,599

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Huayan Amy Wang

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EXAMINER

DAVIS, ZACHARY A

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/809,599	<b>Applicant(s)</b> WANG, HUAYAN AMY	
	<b>Examiner</b> Zachary A. Davis	<b>Art Unit</b> 2437	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 27 May 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-17,19-23 and 25-35 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-17,19-23 and 25-35 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. In response to the notice of abandonment mailed on 26 September 2007, a reply and petition to revive the present application under 37 CFR 1.137(b) were received on 05 October 2007. This petition was dismissed, and a courtesy copy of an advisory action was provided, as of 25 March 2008. A renewed petition, reply, and request for continued examination were received on 27 May 2008, such petition being granted as of 14 July 2008.

#### ***Continued Examination Under 37 CFR 1.114***

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 27 May 2008 has been entered.

3. By the above submission, Claims 1, 4-7, 12-15, 17, 19, 21-23, 25, and 28-35 have been amended. Claims 3 and 24 have been canceled. No new claims have been added. Claims 1, 2, 4-17, 19-23, and 25-35 are currently pending in the present application.

***Response to Arguments***

4. Applicant's arguments filed 27 May 2008 have been fully considered but they are not persuasive.

Regarding the rejection of Claims 1-17 and 19-35 under 35 U.S.C. 103(a) as unpatentable over Macaulay, US Patent Application Publication 2003/0135762, in view of Hrastar, US Patent 7042852, and with specific reference to independent Claims 1 and 19, Applicant argues that neither Macaulay nor Hrastar discloses the state table as now recited in the amended independent Claims (pages 10-12 of the present response). Applicant more specifically asserts that Hrastar "only records 'whether or not the device has been seen before and whether or not the station is unauthenticated and unassociated, authenticated, authenticated and associated or unknown state information associated with the wireless computer network'" (page 11 of the present response, citing Hrastar, column 29, lines 12-17) and therefore does not disclose or suggest "maintaining a state table on said computer, said state table storing state information for said mobile units, the state information including at least a MAC address parameter, an authentication status parameter, and a further parameter unrelated to the MAC address parameter and the authentication status parameter" (see pages 11 and 12 of the present response). The Examiner respectfully disagrees. Although the relevant portion was not explicitly cited in the previous Office action, the Examiner submits that Macaulay and Hrastar do disclose a state table (Hrastar, column 29, lines 5-17, the station database) storing state information including a MAC address

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parameter (see Hrastar, column 29, lines 5-17, where the station database includes records with information on address, which is a MAC address, see for example column 26, lines 41-46), an authentication status parameter (Hrastar, column 29, lines 5-17, where the station database includes state information corresponding to the claimed authentication status parameter, see column 29, lines 12-17 as previously cited), and a further unrelated parameter (Hrastar, column 29, lines 5-17, where the station database includes other parameters such as timestamps and byte counts). The Examiner additionally notes that there does not appear to be clear and explicit written description in the specification of the newly added claim limitations, as detailed below.

Therefore, for the reasons detailed above, the Examiner maintains the rejection as set forth below.

### ***Specification***

5. The objection to the disclosure for informalities is withdrawn in light of the amendments to the specification. Similarly, the objection to the amendment filed 15 December 2006 under 35 U.S.C. 132(a) for introducing new matter has been overcome by the amendment to the specification canceling the new matter as required.

6. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: There does not appear to be proper antecedent basis in the

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specification for the new limitations in independent Claims 1 and 19 regarding the parameters included in the state information. See below regarding the rejection under 35 U.S.C. 112, first paragraph, for failure to comply with the written description requirement for further detail.

***Claim Rejections - 35 USC § 112***

7. The rejection of Claims 3-9, 12-17, and 21-35 under 35 U.S.C. 112, second paragraph, as indefinite is withdrawn in light of the amendments to the claims.

8. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

9. Claims 1, 2, 4-17, 19-23, and 25-35 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Specifically, independent Claims 1 and 19 have been amended to recite the limitation of “the state information including at least a MAC address parameter, an authentication status parameter, and a further parameter unrelated to the MAC address parameter and the authentication status parameter”. Although it appears that the

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specification does describe state information including a MAC address in paragraph 0023 (pages 8-9 of the present specification), it is not apparent whether this description also provides explicit support for the now claimed “authentication status parameter” and further unrelated parameter. The phrase “authentication status” does not appear to be present in the specification, nor does the term “parameter”. Further, it is not clear from the noted portion which, if any, of the stored state information items corresponds to the now claimed authentication status parameter and unrelated parameter. Additionally, Applicant has not pointed out where the amended claims are supported, and as detailed above, there does not appear to be sufficient written description of the newly added claim limitations in the specification as filed. See MPEP § 2163.04(I)(B).

Claims not specifically referred to above are rejected due to their dependence on a rejected base claim.

### ***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 1, 2, 4-17, 19-23, and 25-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Macaulay, US Patent Application Publication 2003/0135762, in view of Hrastar, US Patent 7042852.

In reference to Claim 1, Macaulay discloses a method for detecting unauthorized attempts to access a wireless data communication system, where the method includes forwarding one or more packets received by an access point to a computer that compares the format of the packets to a format specified by a protocol (see paragraphs 0045-0046 and 0095-0107; note also paragraphs 0032-0035 and 0042 where the wireless network is monitored), and signaling an alert if the packets deviate from the protocol specified format (see paragraphs 0049-0050). However, Macaulay does not explicitly disclose maintaining a state table storing state information for the mobile units, where the state information is also used to signal an alert.

Hrastar discloses a method in which a state table storing state information for mobile units is stored (column 28, line 64-column 29, line 4, where the data store includes a state data store; column 29, lines 12-17), where the state information includes at least a MAC address parameter, an authentication status parameter, and a further parameter unrelated to the MAC address parameter and authentication status parameter (column 29, lines 5-17, where the address is a MAC address, column 26, lines 41-46, the “state” corresponds to the claimed authentication status, and the timestamps and byte counts, for example, correspond to the claimed unrelated parameters), and an alert is signaled if packets deviate from the stored state information (column 30, lines 35-43). Therefore, it would have been obvious to one of ordinary skill in the art to modify the method of Macaulay to include state information, in order to enhance network security (Hrastar, column 5, lines 21-22).



In reference to Claim 2, Macaulay and Hrastar further disclose a header message portion and comparing the format of the header portion to the protocol specified format (see Macaulay, the table following paragraph 0094).

In reference to Claim 4, Macaulay and Hrastar further disclose comparing format of a frame control field (see Macaulay, the table following paragraph 0094).

In reference to Claims 5 and 6, Macaulay and Hrastar further disclose Management and Control frames (see Macaulay, the table following paragraph 0094; see also paragraph 0099).

In reference to Claims 7 and 8, Macaulay and Hrastar further disclose comparing a WEP flag value (see Macaulay, paragraph 0104).

In reference to Claim 9, Macaulay and Hrastar further disclose a protocol version (see, for example, Macaulay, paragraph 0083).

In reference to Claims 10 and 11, Macaulay and Hrastar further disclose source MAC addresses that are multicast and broadcast addresses (see Macaulay, paragraphs 0124, 0127).

In reference to Claims 12-15 and 17, Macaulay and Hrastar further disclose monitoring for a possible denial of service attack (Macaulay, paragraph 0106) and that the packets may contain unsupported values and lengths (Macaulay, paragraph 0107, for example).

In reference to Claim 16, Macaulay and Hrastar further disclose detecting a spoofed MAC address (Macaulay, paragraphs 0095, 0101).

In reference to Claim 19, Macaulay discloses a method for detecting unauthorized attempts to access a wireless data communication system, where the method includes forwarding one or more packets received by a mobile unit to a computer that compares the format of the packets to a format specified by a protocol (see paragraphs 0045-0046 and 0095-0107; note also paragraphs 0032-0035 and 0042 where the wireless network is monitored), and signaling an alert if the packets deviate from the protocol specified format (see paragraphs 0049-0050). However, Macaulay does not explicitly disclose maintaining a state table storing state information for the mobile units, where the state information is also used to signal an alert.

Hrastar discloses a method in which a state table storing state information for mobile units is stored (column 28, line 64-column 29, line 4, where the data store includes a state data store; column 29, lines 12-17), where the state information includes at least a MAC address parameter, an authentication status parameter, and a further parameter unrelated to the MAC address parameter and authentication status parameter (column 29, lines 5-17, where the address is a MAC address, column 26, lines 41-46, the “state” corresponds to the claimed authentication status, and the timestamps and byte counts, for example, correspond to the claimed unrelated parameters), and an alert is signaled if packets deviate from the stored state information (column 30, lines 35-43). Therefore, it would have been obvious to one of ordinary skill in the art to modify the method of Macaulay to include state information, in order to enhance network security (Hrastar, column 5, lines 21-22).

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Claims 20-23 and 25-35 recite limitations corresponding to and similar to those recited in Claims 2 and 4-17, and are rejected by a similar rationale.

### ***Conclusion***

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Bhagwat et al, US Patent 7216365, discloses a sniffer for wireless LAN security that detects unauthorized access points.

b. Rosenberger, US Patent 7340768, discloses a system for WLAN monitoring and intrusion detection.

c. Wang et al, US Patent 7426383, discloses a system for WLAN intrusion detection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zachary A. Davis whose telephone number is (571)272-3870. The examiner can normally be reached on weekdays 8:30-6:00, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel Moise can be reached on (571) 272-3865. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Zachary A Davis/  
Examiner, Art Unit 2437